

**Louisiana Department of Environmental Quality (LDEQ)  
Office of Environmental Services**

**STATEMENT OF BASIS**

**Dynamic Industries, Inc.  
Topside Fabrication Facility  
New Iberia, Iberia Parish, Louisiana  
Agency Interest Number: 34017  
Activity Number: PER20040001  
Draft Permit 1260-00118-V0**

**I. APPLICANT:**

**Company:**

Dynamic Industries, Inc.  
4800 Carl Bauer Road, New Iberia, LA 70560

**Facility:**

4800 Carl Bauer Road  
New Iberia, LA 70560  
Approximate UTM coordinates are 611.96 kilometers East  
and 3312.346 kilometers North, Zone 15

**II. FACILITY AND CURRENT PERMIT STATUS:**

Dynamic Industries, Inc. (Dynamic Industries), Topside Fabrication Facility constructs mid-size to large structures used in oilfield exploration and production operations. The equipment includes offshore drilling systems, subsea production systems and land and platform completion systems. Typical activities performed onsite include cutting and welding of raw metal, structure assembly, metal fabrication, sandblasting, painting and related support activities. The main sources of air emissions include Volatile Organic Compounds (VOC's) from painting and solvent cleanup operations, Nitrogen Oxide compounds (NO<sub>x</sub>) emissions from combustion engines, emissions from bulk liquid storage tanks and Particulate Matter (PM<sub>10</sub>) from painting and sandblasting.

The site currently operates under state Permit No. 1260-00118-00, issued November 30, 1999.

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### **III. PROPOSED PERMIT / PROJECT INFORMATION:**

#### **Proposed Permit**

A permit application and Emission Inventory Questionnaire dated November 12, 2001 were submitted by Dynamic Industries, Inc. requesting a Part 70 operating permit. Additional information dated February 22, 2002, February 20, 2004, March 3, 2004, March 29, 2004, July 1, 2004, July 19, 2004, March 23, 2005 and June 2, 2005 was also received.

#### **Project description**

Dynamic Industries proposes the following to operate the facility having emission sources and air emissions that are listed below:

##### **Abrasive Blasting (Emission Point AB-01)**

Abrasive blasting utilizing sand abrasives typically occurs in the yard. PM<sub>10</sub> emissions are emitted from this emission source.

##### **Paint Yard (Emission Point PA-01, TH-01 & SO-01)**

Painting of new and reconditioned equipment using sprayers occurs in the Paint Yard. Emissions from the Paint Yard that are vented to the atmosphere include VOC's and toxic air pollutants from Paint (Emission Point PA-01) and Thinners (Emission Point TH-01). Paint guns are cleaned using Solvents (Emission Point SO-01) that are recycled using a solvent recovery still.

##### **Miscellaneous Painting**

Miscellaneous use of consumer sized paint (spray and can) are used to stencil facility equipment as needed for different activities. This miscellaneous use can occur in any part of the facility and result in minor fugitive emissions, which are considered to be insignificant activities.

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Controls

Dynamic Industries will perform the following activities as a means of compliance and emission reduction:

- 1) Use only those coatings that meet or exceed the standard specified in LAC 33.III.2123.C per coatings application on a daily weighted average basis.
- 2) Control of inventory and scheduling.
- 3) Recycle/reuse solvents.
- 4) Train operators in proper techniques to minimize emissions and improve paint application efficiency.
- 5) Use Good Housekeeping Practices to reduce emissions by using tight-fitting containers, reducing spills, mixing alternative cleaning materials, containment and storage areas for VOC containing materials, etc.
- 6) Use equipment to reduce emissions where possible by enclosing cleaning devices and more efficient application equipment that will increase transfer efficiency.
- 7) Comply with applicable regulations of 40 CFR 63 Subpart M for MACT by the applicable dates specified in 40 CFR part 63 subparts A and M.

Compressors

Compressors used by Dynamic Industries are based on the scope of the project and the availability of rental units. The ability to use different compressor configurations is being requested to keep the company competitive while ensuring compliance with applicable state and federal regulations. As such, Dynamic Industries requests a cap on the diesel fuel used by the compressor engines operating at the facility. The maximum number of engines on site at any time is anticipated to be 17. The maximum horsepower on any individual compressor will be less than 500 hp. The total horsepower on site will not exceed 5,000 hp. The emission cap will be based on the maximum gallons per year of diesel fuel used by the compressors operating at the facility. Below are the proposed conditions:

- 1) Total annual diesel fuel used will not exceed 300,000 gallons.
- 2) Diesel fuel usage will be recorded each month and a running total will be maintained for inspection.
- 3) Each diesel engine (air compressor) on the site will be less than 500 horsepower.
- 4) Total horsepower of all compressors on site will not exceed 5,000 hp.

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Fuel Storage

A 500 gallon pressure tank is used to store propane for use in flame cutting operations. A 3000 gallon pressure tank is used to store oxygen for use in the flame cutting operations. These tanks maintain working pressures sufficient under normal operating conditions to prevent gas loss to the atmosphere. A 3000 gallon storage tank (Emission Point T-03) and a 2900 gallon storage tank (Emission Point T-04) are used to store diesel for facility use. Also located on site is a 400 gallon used lube oil tank (Emission Point T-05).

Dynamic Industries proposes the following to be incorporated into the Part 70 Operating Permit:

- 1) Increase the amount of paints, solvents, thinners and abrasive blasting material being used.
- 2) Consolidate all onsite diesel engines into one source.
- 3) Separate Source PA-01 (Paints and Thinners) into two sources PA-01, Paints, and TH-01, Thinners.

Estimated emissions in tons per year are as follows:

<u>Pollutant</u>	<u>Before</u>	<u>After</u>	<u>Change</u>
PM <sub>10</sub>	34.84	14.91	- 19.93
SO <sub>2</sub>	5.78	6.05	+ 0.27
NO <sub>x</sub>	87.01	91.92	+ 4.91
CO	18.74	19.80	+ 1.06
VOC *	31.73	107.32	+ 75.59

\*VOC LAC 33:III Chapter 51 Toxic Air Pollutants (TAPs):

<u>Pollutant</u>	<u>Before</u>	<u>After</u>	<u>Change</u>
n-Butyl Alcohol	0.06	5.56	+ 5.50
Methyl Ethyl Ketone	2.17	2.11	- 0.06
Methyl Isobutyl Ketone	0.06	0.29	+ 0.23
Xylene	1.14	18.90	+ 17.76
Benzene	-	0.02	+ 0.02
Toluene	9.16	13.82	+ 4.66
Ethyl benzene	0.25	7.13	+ 6.88

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\*VOC LAC 33:III Chapter 51 Toxic Air Pollutants (TAPs):

Pollutant	Before	After	Change
Glycol Ethers	-	2.07	+ 2.07
Methanol	0.53	0.86	+ 0.33
HDI Isocyanate	0.06	-	- 0.06
Total	13.43	50.76	+ 37.33

Other VOC (TPY): 56.56

LAC 33:III Chapter 51 Non-VOC Toxic Air Pollutants (TAPs):

Pollutant	Before	After	Change
Zinc	1.34	0.28	- 1.06
Total	1.34	0.28	- 1.06

**Prevention of Significant Deterioration Applicability**

N/A

**MACT requirements**

N/A

**Air Modeling Analysis**

Dispersion Model(s) Used: ISCST3

Pollutant	Time Period	Calculated Maximum Ground Level Concentration	Louisiana Toxic Air Pollutant Ambient Air Quality Standard or (National Ambient Air Quality Standard {NAAQS})
PM <sub>10</sub>	Annual Average	20 µg/m <sup>3</sup>	(50 µg/m <sup>3</sup> )
PM <sub>10</sub>	24 hr Average	84 µg/m <sup>3</sup>	(150 µg/m <sup>3</sup> )

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**General Condition XVII Activities**

The facility will comply with the applicable General Condition XVII Activities emissions as required by the operating permit rule. However, General Condition XVII Activities are not subject to testing, monitoring, reporting or recordkeeping requirements. For a list of approved General Condition XVII Activities, refer to Section VIII of the draft Part 70 permit renewal.

**Insignificant Activities**

All Insignificant Activities are authorized under LAC 33:III.501.B.5. There are no Insignificant Activities.

**IV. Permit Shields**

N/A

**V. Periodic Monitoring**

None

<b>VI. Applicability and Exemptions of Selected Subject Items</b>		
<b>ID No:</b>	<b>Requirement</b>	<b>Notes</b>
	The applicability of the appropriate regulations is straightforward and provided in the Facility Specific Requirements Section of the draft permit, or where provided, Tables X and XI of the draft permit	

<b>VII. Streamlined Requirements</b>			
<b>Unit or Plant Site</b>	<b>Programs Being Streamlined</b>	<b>Stream Applicability</b>	<b>Overall Most Stringent Program</b>
N/A			

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## **VIII. Glossary**

Carbon Monoxide (CO) – A colorless, odorless gas which is an oxide of carbon.

Nitrogen Oxides (NO<sub>x</sub>) - Compounds whose molecules consists of nitrogen and oxygen.

Organic Compound - Any compound of carbon and another element. Examples: Methane (CH<sub>4</sub>), Ethane (C<sub>2</sub>H<sub>6</sub>), Carbon Disulfide (CS<sub>2</sub>)

Part 70 Operating Permit- Also referred to as a Title V permit, required for major sources as defined in 40 CFR 70 and LAC 33:III.507. Major sources include, but are not limited to, sources which have the potential to emit:  $\geq 10$  tons per year of any toxic air pollutant;  $\geq 25$  tons of total toxic air pollutants; and  $\geq 100$  tons per year of regulated pollutants (unless regulated solely under 112(r) of the Clean Air Act) (25 tons per year for sources in non-attainment parishes).

PM<sub>10</sub>- Particulate matter with an aerodynamic diameter less than or equal to a nominal 10 micrometers as measured by the method in Title 40, Code of Federal Regulations, Part 50, Appendix J.

Potential to Emit (PTE) - The maximum capacity of a stationary source to emit any air pollutant under its physical and operational design.

Prevention of Significant Deterioration (PSD) – A New Source Review permitting program for major sources in geographic areas that meet the National Ambient Sulfur Dioxide (SO<sub>2</sub>) – An oxide of sulphur.

Title V permit – See Part 70 Operating Permit.

Volatile Organic Compound (VOC) - Any organic compound which participates in atmospheric photochemical reactions; that is, any organic compound other than those which the administrator of the U.S. Environmental Protection Agency designates as having negligible photochemical reactivity.

Grandfathered Status- Those facilities that were under actual construction or operation as of June 19, 1969, the signature date of the original Clean Air Act. These facilities are not required to obtain a permit. Facilities that are subject to Part 70 (Title V) requirements lose grandfathered status and must apply for a permit.

NESHAP - National Emission Standards for Hazardous Air Pollutants –Air emission standards for specific types of facilities, as outlined in 40 CFR Parts 61 through 63

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**VIII. Glossary (cont'd)**

Continuous Emission Monitoring System (CEMS) – The total combined equipment and systems required to continuously determine air contaminants and diluent gas concentrations and/or mass emission rate of a source effluent.

Nonattainment New Source Review (NNSR) - A New Source Review permitting program for major sources in geographic areas that do not meet the National Ambient Air Quality Standards (NAAQS) at 40 CFR Part 50. Nonattainment NSR is designed to ensure that emissions associated with new or modified sources will be regulated with the goal of improving ambient air quality.

NSPS - New Source Performance Standards – Air emission standards for specific types of facilities, as outlined in 40 CFR Part 60

Organic Compound - Any compound of carbon and another element. Examples: Methane (CH<sub>4</sub>), Ethane (C<sub>2</sub>H<sub>6</sub>), Carbon Disulfide (CS<sub>2</sub>)